

Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Non-elected claims 22, 23 and 25-27 have been cancelled without prejudice or disclaimer of the subject matter contained therein. New claim 40 has been added.

Claim Rejections - 35 USC § 102 and § 103

Claims 1-7, 29-31, 33 and 34 stand rejected under 35 USC §103(a) as being unpatentable over Japanese Patent Publication No. 63-074027 ("Ueno"). It is respectfully requested that the rejection be withdrawn for at least the following reasons.

Claim 1 recites a display system that includes a pair of displays at an obtuse angle to each other and a beam splitter so positioned relative to the two displays at the bisectrix of said angle to combine images from the displays whereby one image is transmitted by the beam splitter and the other image is reflected by the beam splitter to provide direct view of images from the displays.

The Examiner acknowledges that Ueno fails to disclose a display system having a pair of displays at an obtuse angle to each other¹, however, the Examiner concludes that modifying Ueno to achieve a display system having a pair of displays at an obtuse angle would simply be a design choice.

It is respectfully submitted that Ueno does not support such a conclusion. In addition, there is no evidence on the record that would provide a reason why a skilled person would modify Ueno by adjusting the angle between the displays.

MPEP 2144.04 provides guidance on the issue of rearrangement of parts and design choice. "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. *The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the*

¹ Office Action, pages 2-3.

necessary changes in the reference device.” Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984) (Emphasis added).

Ueno has not been found to provide any reason why a skilled person would modify what is specifically taught in Ueno, i.e., a device with perpendicular displays, to arrive at the invention recited in claim 1.

Ueno is understood to require the displays to be oriented perpendicularly to one another. For example, page 1 of the English translation of Ueno discusses and illustrates “perpendicularly providing the display surfaces.” In addition, at the bottom of page 4 of the English translation, Ueno discloses “[t]he single side of the half mirror requires a length of $\sqrt{2}L$ or larger.”² Ueno has not been found to make any mention of altering the angle between the displays or that alteration of the angle between the displays would produce a predictable result.

For at least these reasons it is respectfully submitted that the rejection of claim 1 and dependent claims 2-7 should be withdrawn.

Claims 8-15 stand rejected under 35 USC §103(a) as being unpatentable over Japanese Patent Publication No. 63-074027 (“Ueno”) in view of USPN 6,449,090 (“Omar”). It is respectfully requested that the rejections be withdrawn for at least the following reasons.

Claim 8, which has been represented in independent form, recites a display system that includes, *inter alia*, a pair of displays, the displays being at an obtuse angle to each other and having a polarized light outputs, the polarization for both displays being the same, and wherein the polarization is modified by adding quarter wave plates, respectively, to the light paths from the LCDs so that the images from the respective displays as viewed via the beam splitter are separated by right and left circular polarized light.

As is discussed above with respect to claim 1, Ueno has not been found to disclose a display system having a pair of displays being at an obtuse angle to each other. In addition, Omar has not been found to cure this deficiency of Ueno with

² It is understood that this calculation is based on a perpendicular relationship between the displays.

respect to claim 8. For at least this reason, the rejection should be withdrawn because the Ueno and Omar, taken alone or in combination, fail to disclose at least one element recited in claim 8.

In addition, at pages 4-5, the Office Action notes that Ueno fails to make any mention of circular polarization and/or quarter wave plates, but turns to Omar to cure the deficiencies of Ueno with respect to claim 8.

The rejection of claim 8 should be withdrawn because Omar, when taken in its entirety, teaches away from the invention recited in claim 8. As noted above, claim 8 recites polarization for both displays being the same. While Omar does make mention of displays having circular polarization, Omar discloses a pair of LCD panels (8) and (5) and quarter wave plates (28) and (29) that produce circularly polarized light of opposite handedness. The Examiner's attention is directed to col. 6, lines 40-47, which is quoted on page 5 the Office Action. The relevant portion of Omar states that,

[t]he quarter wave plates 28 and 29 convert the linearly polarized light from the panels 8 and 5 to circularly polarized light of *opposite handedness*. (emphasis added).

As such, not only does Omar fail to cure the deficiencies of Ueno with respect to claim 8, but Omar teaches away from the claimed display system having a pair of displays with the polarization for both displays being the same and wherein the respective displays as viewed via the beam splitter are separated by right and left circular polarized light.

The Examiner is reminded that MPEP 2143.03 VI mandates that "PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMS."

MPEP 2143.03 VI goes on to instruct that "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

As such, Omar's clear disclosure of a pair of LCD panels (8) and (5) and quarter wave plates (28) and (29) that produce circularly polarized light of opposite handedness cannot be ignored. When taken in its entirety, Omar, in combination with Ueno,

teaches away from light incident on the beam splitter from the two displays having circular polarization in the same sense, as is recited in claim 8.

For at least this additional reason, claim 8 is not rendered obvious by Ueno in combination with Omar. Therefore, the rejection should be withdrawn.

Claim 10, which has been represented in independent form, recites a display system that includes, *inter alia*, a pair of displays at an obtuse angle to each other; and a beam splitter so positioned relative to the two displays at the bisectrix of said angle to combine images from the displays whereby one image is transmitted by the beam splitter and the other image is reflected by the beam splitter wherein the displays each have a polarized light output, the polarization for both displays being the same, and wherein the polarization for both displays is circular.

As discussed above with respect to claim 8, the rejection of claim 10 should be withdrawn for at least two reasons: (1) Ueno in combination with Omar fail to disclose the claimed display system having a pair of displays at an obtuse angle to each other; and (2) Omar, when taken in its entirety, teaches away from the claimed display system having a pair of displays with the same polarization, wherein the polarization for both displays is circular.

Again, while Omar does make mention of displays having circular polarization, Omar discloses a pair of LCD panels (8) and (5) and quarter wave plates (28) and (29) that produce circularly polarized light of opposite handedness. (See, e.g., Omar at col. 6, lines 40-47).

For at least these reasons, the rejection of claim 10 and dependent claims 11-15 should be withdrawn.

Claims 16, 17, 19 and 20 stand rejected under 35 USC §102(b) as being anticipated by USPN 2,845,618 ("Huffman"). It is respectfully requested that these rejections should be withdrawn in view of the amendments to claims 16 and 19.

Independent claims 16 and 19 each have been amended to recite a method of displaying/presenting stereo images that includes displaying or presenting left and right images on displays that are at an obtuse angle to each other. The claim 16 and claim

19 methods further recite that the left and right images having optical polarization in the same direction.

It is respectfully submitted that Huffman fails to anticipate claim 16 and claim 19 for at least two reasons.

In rejecting claim 16, page 11 of the Office Action points to Huffman at col. 1, lines 21-25, and col. 2, lines 16-20. Neither of these portions of Huffman have been found to address the claimed method including displaying or presenting left and right images having optical polarization in the same direction.

In fact, Huffman, taken as a whole, has not been found to disclose displaying or presenting left and right images having optical polarization in the same direction. Rather, Huffman is understood to disclose one display having a first light output that is polarized at 51 degrees relative to a horizontal and a second light output polarized at 28 degrees relative to a horizontal³ - clearly these polarization directions are not the same.

For at least these reasons, the rejection of claims 16 and 19, and their respective dependent claims, should be withdrawn.

In addition, Huffman makes no mention of displays being at an obtuse angle to each other. In fact, Huffman specifically discloses and illustrates the displays (and their respective polarizing sheets) being at an angle of 90 degrees.

For at least this additional reason, amended claims 16 and 19 are not anticipated by Huffman. Therefore, the rejection should be withdrawn.

Claim 24 has been rejected under 35 USC §102(b) as being anticipated by Ueno. It is respectfully submitted that the rejection should be withdrawn for at least the following reasons.

Claim 24 recites a display system that includes a first display having optical polarization characteristics, a second display smaller in area than the first display and having optical polarization characteristics, the second display being at an angle to the

³ See, e.g., col. 2, lines 67-72.

first display and a beam splitter at the bisectrix of the angle between the first and second displays.

In rejecting claim 24, the Office Action makes no mention of the claim 24 recitation of a display system having a first display having optical polarization characteristics, a second display smaller in area than the first display. For at least this reason, the rejection of claim 24 should be withdrawn.

In addition, Ueno has not been found to disclose or fairly suggest the claimed display system including a first display having optical polarization characteristics, and a second display smaller in area than the first display and having optical polarization characteristics, the second display being at an angle to the first display and a beam splitter at the bisectrix of the angle between the first and second displays. Rather, Ueno discloses a display system having a pair of displays of the same size.⁴ For at least this additional reason, the rejection should be withdrawn.

Accordingly, Ueno fails to anticipate claim 24 because Ueno fails to disclose at least one feature recited in claim 24. Therefore, the rejection of claim 24 and dependent claims 38 and 39 should be withdrawn.

Independent claims 28, 32 and 37 have been rejected under 35 USC §102(b) as being anticipated by Ueno. These anticipation rejections should be withdrawn in view of the amendments to claims 28, 32 and 37.

Claims 28, 32 and 37 each have been amended to recite display systems having a pair of displays arranged at an obtuse angle relative to each other and a beam splitter between the pair of displays.

As is discussed above with respect to claim 1, Ueno fails to disclose a display system having a pair of displays arranged at an obtuse angle relative to each other. Therefore, as is pointed out on pages 2-3 of the Office Action Ueno does not anticipate a display system having a pair of displays arranged at an obtuse angle.

⁴ See, e.g., the last paragraph of page 4 of the Ueno translation which describes display surfaces a and b as being the same.

Further, as is discussed above with respect to claim 1, Ueno does not support an obviousness rejection because Ueno appears to specifically teach one orientation for the pair of displays - the displays being arranged perpendicularly to one another. Further, Ueno does not provide any reason why a skilled person should modify the device of Ueno to arrive at the device recited in any of amended claims 28, 32 and 37. See MPEP 2144.04.

For at least these reasons, the rejections of claims 28-34 and 37 should be withdrawn.

Independent claims 35 and 36 have been rejected under 35 USC §102(b) as being anticipated by Ueno. These anticipation rejections should be withdrawn in view of the amendments to claims 35 and 36.

Claims 35 and 36 have been amended to methods of displaying/presenting stereo images that include, *inter alia*, displaying left eye and right eye images on displays at an obtuse angle to one another.

The remarks set forth above with respect to claim 1 and claims 28, 32 and 37 are renewed here. Ueno fails to disclose or suggest displaying left eye and right eye images on displays at an obtuse angle to one another. Therefore, Ueno does not anticipate claim 35 or claim 36.

In addition, Ueno does not support an obviousness rejection because Ueno appears to specifically teach one orientation for the pair of displays - the displays being arranged perpendicularly to one another. Further, Ueno does not provide any reason why a skilled person should modify the device of Ueno to arrive at the device recited in amended claim 35 or claim 36.

For at least these reasons, the rejections of claims 35 and 36 should be withdrawn.

Telephone Correspondence

In the interests of advancing this application to allowance and compact prosecution, it is respectfully requested that the Examiner telephone the undersigned to discuss any of the foregoing with which there may be some controversy or confusion or to make any suggestions that the Examiner may have to place the application in condition for allowance.

Conclusion

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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